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(FILE 'HOME' ENTERED AT 16:24:32 ON 21 JAN 2009)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, LIFESCI' ENTERED AT 16:24:58 ON 21 JAN 2009

L1 389 S (INCREAS? OR ENHANC?) (5A) (NEURAL OR NEURON?) (4A) (TRANSPORT OR  
L2 15084 S BDNO OR NT-4 OR GDNF  
L3 12151 S BDNF PR NT-4 OR GDNF  
L4 2 S L1 AND L3  
L5 2 DUP REM L4 (0 DUPLICATES REMOVED)

=> d bib ab 1-2 15

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2003:788860 CAPLUS  
DN 140:71459  
TI GDNF increases the survival of developing oculomotor neurons  
through a target-derived mechanism  
AU Chen, Jennifer; Butowt, Rafal; Rind, Howard B.; von Bartheld, Christopher  
S.  
CS MS 352, Department of Physiology and Cell Biology, University of Nevada  
School of Medicine, Reno, NV, 89557, USA  
SO Molecular and Cellular Neuroscience (2003), 24(1), 41-56  
CODEN: MOCNED; ISSN: 1044-7431  
PB Elsevier Science  
DT Journal  
LA English  
AB Glial cell line-derived neurotrophic factor (GDNF) is the most  
potent motoneuron survival factor. The authors show here that in the  
chick oculomotor system, endogenous GDNF is derived largely from  
extraocular muscle but less from glial cells and not from muscle spindles.  
Increased levels of GDNF exclusively in the target rescued 30%  
of oculomotor neurons that would normally die during developmental cell  
death, a rate of rescue similar to that with systemic GDNF  
application. Thus, GDNF supports motoneuron survival in a  
retrograde, target-derived fashion, as opposed to a local paracrine route  
or an indirect route via sensory afferents. Persephin, another member of  
the GDNF family, did not increase survival with target delivery,  
despite its retrograde transport from the target. Unlike GDNF,  
however, persephin increased neurite outgrowth from oculomotor nuclei in  
vitro. Thus, one GDNF family member acts as a muscle-derived  
retrograde survival factor, whereas another one has distinct functions on  
neurite outgrowth.  
RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN  
AN 2002:520318 CAPLUS  
DN 137:211245  
TI Lentivirally delivered glial cell line-derived neurotrophic factor  
increases the number of striatal dopaminergic neurons in primate models of  
nigrostriatal degeneration  
AU Palfi, Stephane; Leventhal, Liza; Chu, Yaping; Ma, Shuang Y.; Emborg,  
Marina; Bakay, Roy; Deglon, Nicole; Hantraye, Philippe; Aebischer,  
Patrick; Kordower, Jeffrey H.  
CS Department of Neurological Sciences, Rush-Presbyterian-St. Luke's Medical  
Center, Chicago, IL, 60612, USA  
SO Journal of Neuroscience (2002), 22(12), 4942-4954  
CODEN: JNRSDS; ISSN: 0270-6474  
PB Society for Neuroscience

DT Journal  
LA English  
AB The primate striatum contains tyrosine hydroxylase (TH)-immunoreactive (ir) neurons, the nos. of which are augmented after dopamine depletion. Glial cell line-derived neurotrophic factor (GDNF) strongly modulates the viability and phenotypic expression of dopamine ventral mesencephalic neurons. The effect of GDNF on TH-ir neurons intrinsic to the striatum has yet to be investigated. In the present study, stereol. counts of TH-ir striatal neurons in aged and parkinsonian nonhuman primates revealed that GDNF delivered via a lentiviral vector (lenti-) further increased the number of these cells. Aged monkeys treated with lenti-GDNF displayed an 8-fold increase in TH-ir neurons relative to lenti- $\beta$ -galactosidase-treated monkeys. Unilateral 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine treatment alone in young monkeys resulted in a bilateral 8-fold increase in TH-ir striatal cells. This effect was further magnified 7-fold on the side of lenti-GDNF treatment. These cells colocalized with the neuronal marker neuronal-specific nuclear protein. Some of these cells colocalized with GDNF-ir, indicating that an alteration in phenotype may occur by the direct actions of this trophic factor. Thus, GDNF may mediate plasticity in the dopamine-depleted primate brain, which may serve to compensate for cell loss by converting striatal neurons to a dopaminergic phenotype.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s tetanus(3a)toxin  
L6 13457 TETANUS(3A) TOXIN

=> s 15 and 16  
L7 0 L5 AND L6

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